ABSTRACT

An apparatus and method for detecting battery removal, battery absence, and/or defective battery condition for use with battery charging and testing systems is provided. The apparatus includes a regulator, feedback module, controller, and detector module. The regulator and feedback module supply a regulated charging signal to a battery. The controller interrupts the feedback module so as to cause the regulator to suspend supplying the charging signal to the battery, which in turn, allows the charging signal to discharge for a predetermined period of time.

During the predetermined period, the detector module detects whether the charging signal discharges below a predetermined threshold. When the charging signal discharges below the predetermined threshold, the detector module detects one or more conditions that indicate that the battery cannot be charged. These conditions include conditions that indicate that the battery is absent, missing, and/or defective.